

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07C305/10 C11D1/29

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07C C11D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data, PAJ, BEILSTEIN Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 3 843 706 A (WEIL J,US ET AL) 22 October 1974 (1974-10-22) Tabelle V, cf. Verbindung 1 und 16, 8 und 16, 9 und 16 Verbindungen 1-15 aus der Tabelle IV, 1-7 in Tabelle 7 column 1, line 54 - line 67 column 6, line 1 - line 24 ----- -/--</p>	1-10

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

21 June 2005

Date of mailing of the international search report

04/07/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WEIL, JAMES K. ET AL.: "Oxypropylation of Fatty Alcohols, and the Sulfation Products"</p> <p>JOURNAL OF THE AMERICAN OIL CHEMISTS' SOCIETY,</p> <p>vol. 43, 1966, pages 157-160, XP009049201</p> <p>Tabelle IV, cf. Verbindung 1 mit Verbindung 9, Verbindung 4 mit Verbindung 8, Verbindung 5 mit Verbindung 9.</p> <p>Verbindungen 1-6 in Tabelle IV und Verbindungen der Tabelle V</p> <p>page 160, left-hand column, line 30 - line 33</p>	1-10
X	<p>SHINODA, KOZO ET AL: "Ionic surfactants soluble in hard water and in hydrocarbons: behavior of organized surfactant solutions as a function of the hydrophilic-lipophilic balance"</p> <p>JOURNAL OF PHYSICAL CHEMISTRY,</p> <p>vol. 90, no. 7, 1986, pages 1228-30, XP002332576</p> <p>Tabelle I, cf. Verbdg. 1 mit Verbdg. 7 für n=12; Verbdg. 1 mit Verbdg.10 für n=12</p> <p>Tabelle I, cf. Verbdg. 1 mit Verbdg. 7 für n=14</p> <p>Tabelle I, cf. Verbdg. 1 mit Verbdg. 7 für n=16</p> <p>Verbindungen 7-11 in Tabelle I, Verbindungen 4-12 in Tabelle II</p> <p>page 1228, right-hand column, line 8 - line 18</p>	1-10
X	<p>WEIL, JAMES K. ET AL: "Synthesis and surface active properties of long-chain ether alcohol sulfates R(OCH₂CHR')iOSO₃Na"</p> <p>CHIM. PHYS. APPL. PRAT. AG. SURFACE, C. R. CONGR. INT. DETERG., 5TH, MEETING DATE 1968, VOLUME 1, 45-50 PUBLISHER: EDICIONES UNIDAS, S. A., BARCELONA, SPAIN., 1969, XP001206849</p> <p>Tabelle 1, cf. Verbdg. 1 mit Verbindungen 4, 5, 6 und 7</p> <p>Tabelle 1, Verbdg. 8 mit Verbindungen 11, 12, 13 und 14</p> <p>Tabelle 1, Verbdg. 15 mit Verbindungen 18, 19, 20 und 21</p> <p>Tabelle 1, Verbdg. 22 mit Verbindungen 25, 26, 27 und 28</p> <p>page 47, line 9 - line 12</p> <p style="text-align: center;">-/--</p>	1-10

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE CAPLUS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; MURATA, M. ET AL: "New anionic surfactants being resistant to hard water: sodium alkyl ether sulfates having oxypropylene groups" XP002332579 retrieved from STN Database accession no. 1981:499677 abstract & COMUN. JORN. COM. ESP. DETERG., 12TH , 177-91 PUBLISHER: ASOC. INVEST. DETERGENTES, TENSIOACTIVOS AFINES, BARCELONA, SPAIN. CODEN: 46ARAB, 1981,</p>	1-10
X	<p>DE 44 36 066 A1 (HENKEL KGAA, GERMANY) 11 April 1996 (1996-04-11) Beispiele H2, H3 und H5; Anspruch 6</p>	1-10
X	<p>EP 0 167 337 A (ATLANTIC RICHFIELD COMPANY) 8 January 1986 (1986-01-08) Verbindungen auf Seite 3-Seite 5 claims; examples; tables</p>	1-10
X	<p>MINANA-PEREZ, MATILDE ET AL: "Solubilization of polar oils with extended surfactants" COLLOIDS AND SURFACES, A: PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol. 100, 1995, pages 217-24, XP002332578 Seite 220, Abb. 3, Verbindungen 712 SN, 713 SN</p>	1-10
A	<p>WO 94/11330 A (BEROL NOBEL AB; DAHLGREN, LENNART; BERGSTROEM, KARIN) 26 May 1994 (1994-05-26) the whole document</p>	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP2005/001319

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3843706	A	22-10-1974	NONE	
DE 4436066	A1	11-04-1996	WO EP	9611177 A1 0785918 A1
EP 0167337	A	08-01-1986	US US US EP JP	4594185 A 4608197 A 4592875 A 0167337 A2 61014295 A
				10-06-1986 26-08-1986 03-06-1986 08-01-1986 22-01-1986
WO 9411330	A	26-05-1994	SE AT AT CA CA DE DE DE DE EP EP ES ES FI FI JP JP NO NO SE WO US US	501132 C2 153327 T 153328 T 2148705 A1 2148706 A1 69310925 D1 69310925 T2 69310926 D1 69310926 T2 0669906 A1 0669907 A1 2104333 T3 2105602 T3 952430 A 952431 A 8502992 T 8502993 T 951961 A 951962 A 9203478 A 9411330 A1 5608118 A 5661121 A
				21-11-1994 15-06-1997 15-06-1997 26-05-1994 26-05-1994 26-06-1997 28-08-1997 26-06-1997 28-08-1997 06-09-1995 06-09-1995 01-10-1997 16-10-1997 18-05-1995 18-05-1995 02-04-1996 02-04-1996 18-05-1995 18-05-1995 20-05-1994 26-05-1994 04-03-1997 26-08-1997